

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

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In the Matter of)	DA 11-131
)	
Unlicensed Operation in the TV Broadcast Bands)	ET Docket No. 04-186
)	
Additional Spectrum for Unlicensed Devices)	ET Docket No. 02-380
Below 900 MHz and in the 3 GHz Band)	
)	

To: Marlene Dortch, Secretary

Attn: Chief, Office of Engineering and Technology

Report of Key Bridge Global concerning:

- A generalized information formatting and encoding scheme for wireless services
- A standardized formatting and encoding scheme for white space messaging
- A standardized strategy for white space information distribution and exchange

Key Bridge shares the Commission's enthusiasm to prove the feasibility of unlicensed operation in the Television broadcast bands as an onramp to additional authorizations for opportunistic broadband wireless services in other bands. Key Bridge's own strategic vision for white space implementation in the TV broadcast bands and beyond has always held that neutrality, open standards, and transparent administration are required for long term success. This vision has guided our approach to standards-based white space technology development.

Key Bridge developed our first prototype white space database in the fall of 2008 and for the past three years we have worked to implement and improve various aspects of white space and other spectrum-related administration tasks through inclusive and broad-based collaboration with Industry, non-profit organizations and Government agencies. From this work and experience we established that there is no suitable technology that provides for the standardized description and exchange of white space information. Additional research showed that the problem statement was larger than just white space; that while spectrum reservation protocols exist within the Government there are no open commercial standards to generally describe and accurately exchange comprehensive information about wireless transmissions and services. Therefore, along with our partners, Key Bridge felt that a new implementation would provides great benefit to the larger wireless community including white space, TD-LTE, consumer and military cognitive radio, plus Government and commercial spectrum administration responsibilities and we set about to collaboratively develop a new approach.

On behalf of our teaming partners, associates, informal contributors and trial users Key Bridge is pleased to advise the Commission of our recent milestone of completing version 2.0 of the *Wireless Service Information Format (WSIF)*, an open, standardized, extensible information organization and encoding framework useful for the efficient communication of wireless services with specific applicability to white space administration and operation. We are also pleased to provide two additional commercial implementation standards that build upon the WSIF to support and enable required aspects of white space operation: the *Format for White Space Messaging (WSM)*, which describes a message structure for TV band devices, and the *Format for WSIF Distribution and Exchange (WDEF)*, which describes a message structure for white space administrator synchronization.

The Wireless Service Information Format plus the two additional formats built upon it provide a number of improvements over other proprietary or dated implementations, including:

- Internationalization

All attributes and elements defined within the WSIF may be encoded in any language or desired character encoding. The WSIF channel definition enables the authoritative description of a spectrum channel or frequency band including identification of the authorizing regulatory framework.

- Extensibility

Components within the WSIF and their respective validation rules may be easily reconfigured according to user-defined enumerated “class” and “type” attributes. This feature enables the WSIF to easily accommodate the complete and authoritative description of non-white space wireless transmissions including cellular, satellite and microwave services, as examples. Additionally, many WSIF objects include an

“extension” element to allow for unrestricted user enhancement without modifying the format or otherwise breaking standards-compliance and interoperability.

- Standardization

The WSIF is a publicly available commercial implementation strategy for white space administration authored by Key Bridge, who is publishing the specification and its derivatives with no restrictions beyond basic copyright control.

While the WSIF, WSM and WDEF documents have each been through countless revision and undergone significant review we do not propose that they are complete or final. Rather, our expectation and hope is that sharing these commercial specifications with the Commission and will stimulate additional input, feedback and comment and contribute to the document’s further development and improvement.

Key Bridge and the solution team we represent believe the WSIF, WSM and WDEF specifications represent an important, positive milestone for open, transparent and standards-based white space implementation. We look forward to working with the FCC and the other conditionally designated administrators to continue maturing this technology and providing stable, robust, transparent and neutral white space administration.

Respectfully submitted

/s/

Jesse Caulfield, President

Key Bridge Global LLC